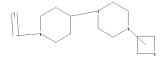
10/540304

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```
chain nodes :
13   14
ring nodes :
1   2   3   4   5   6   7   8   9  10  11  12  16  17  18  19
chain bonds :
2-13   5-9  13-14
ring bonds :
1-2   1-6   2-3  3-4  4-5  5-6  7-8  7-12  8-9  9-10  10-11  11-12  16-17  16-19
17-18  18-19
exact/norm bonds :
1-2   1-6  2-3  2-13  3-4  4-5  5-6  5-9  7-8  7-12  8-9  9-10  10-11  11-12  13-14
16-17  16-19  17-18  18-19
isolated ring systems :
containing 1 : 7 :
```

G1:0,N

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS

L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 14:03:51 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 1802 TO ITERATE

100.0% PROCESSED 1802 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH **COMPLETE** 33494 TO 38586 PROJECTED ITERATIONS: 1 TO 80 PROJECTED ANSWERS:

1 SEA SSS SAM L1 T.2

=> s l1 sss full

FULL SEARCH INITIATED 14:03:57 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 34077 TO ITERATE

100.0% PROCESSED 34077 ITERATIONS 22 ANSWERS

SEARCH TIME: 00.00.01

T.3 22 SEA SSS FUL L1

=> file caplus

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FULL ESTIMATED COST

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=> s 13

1 L3 L4

=> d 14 bib abs hitstr

- L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2004:550949 CAPLUS
- DN 141:106497
- TI Preparation of substituted 1-piperidin-4-yl-4-azetidin-3-yl-piperazine derivatives and their use as neurokinin antagonists
- IN Janssens, Frans Eduard; Sommen, Francois Maria; De Boeck, Benoit Christian Albert Ghislain; Leenaerts, Joseph Elisabeth
- PA Janssen Pharmaceutica N.V., Belg.
- SO PCT Int. Appl., 52 pp. CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

FAN.	PATENT NO.					KIND DATE			APPLICATION NO.					DATE					
ΡI	WO 2004056800				A1 20040708		WO 2003-EP51042				20031217								
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KΖ,	LC,	
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NΙ,	NO,	
			NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
		RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	
			BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
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								CA 2003-2509406											
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	JP 2006512349 AT 354572																		
		ES 2282731								ES 2003-3799583									
	US 2006074069							US 2005-540304					20050621						
PRAI	PRAI WO 2002-EP14837																		
	WO 2003-EP51042					W		2003	1217										
OS	MAI	MARPAT 141:106497																	
GΙ																			

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB Title compds. I [Q = O or NR3; X = covalent bond, -O-, -S-, or -NR3; R1 independently = Ar1, Ar1-alkyl, and di(Ar1)-alkyl; R2 = Ar2, Ar2-alkyl, di(Ar2)-alkyl Het1, Het1-alkyl; R3 independently = H or alkyl; Y = covalent bond, -CO-, -SO2-, >C:CHR or >C:NR, wherein R = H, CN or NO2; M independently = covalent bond, (un)substituted-alkyl, -(un)saturated carbocycle; L = H, alkyloxy, Ar3oxy, alkylamine, etc.; Ar1 = (un)substituted phenyl; Ar2 = (un)substituted naphthalenyl or Ph with substituent(s) selected from halo, alkyl, CN, aminocarbonyl, and alkyloxy; Ar3 = (un)substituted naphthalenyl or Ph with substituent(s) selected from

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halo, alkyl, CN, amino, alkyloxy, OH, pyridinyl, etc.; Het1 = monocyclic
heterocyclic radical selected from pyrrolyl, pyrazolyl, imidazolyl,
furanyl, etc.; m = 1 or 2 provided that if m = 2, then n = 1; n = 0-2; p = 1
1-2; q = 0-1] and their pharmaceutically acceptable salts having
neurokinin antagonistic activity, in particular NK1 antagonistic activity
and NK1/NK3- antagonistic activity, their preparation, compns. comprising them
and their use as a medicine, in particular for the treatment of
schizophrenia, emesis, anxiety, depression, irritable bowel syndrome
(IBS), circadian rhythm disturbances, pain, neurogenic inflammation,
asthma, micturition disorders such as urinary incontinence and nociception
are disclosed. Thus, e.g., II was prepared by reaction of
(2R-trans)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-(1-
piperazinyl)piperidine (preparation given) with 1-(diphenylmethyl)-3-azetidinyl
methanesulfonate. For selected compds. of the invention, receptor binding
pIC50 values for h-NK1 were in a range from 6.69-8.13. In view of their
capability to antagonize the actions of tachykinins by blocking the
neurokinin receptors, and in particular antagonizing the actions of
substance P by blocking the NK receptors, the compds. according to the
invention are useful as a medicine, in particular in the prophylactic and
therapeutic treatment of tachykinin mediated conditions, such as, for
instance CNS disorders, in particular depression, anxiety disorders,
stress-related disorders, sleep disorders, cognitive disorders,
personality disorders, schizoaffective disorders, eating disorders,
neurodegenerative diseases, addiction disorders, mood disorders, sexual
dysfunction, pain and other CNS related conditions; inflammation;
allergic disorders; emesis; gastrointestinal disorders, in particular
irritable bowel syndrome (IBS); skin disorders; vasospastic diseases;
fibrosing and collagen diseases; disorders related to immune enhancement
or suppression and rheumatic diseases and body weight control.
718637-71-9P 718637-72-0P 718637-73-1P
718637-74-2P 718637-75-3P 718637-76-4P
718637-77-5P 718637-78-6P 718637-79-7P
718637-80-0P 718637-81-1P 718637-82-2P
718637-83-3P 718637-84-4P 718637-85-5P
718637-86-6P 718637-87-7P 718637-88-8P
718637-89-9P 718637-90-2P 718637-91-3P
718637-92-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (stereoselective preparation of piperidinylazetidinylpiperazines with
   tachykinin antagonist activity)
718637-71-9 CAPLUS
Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(diphenylmethyl)-3-
```

azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX

Absolute stereochemistry.

NAME)

ΤТ

RN

CN

RN 718637-72-0 CAPLUS

CN Piperidine, 4-[4-(3-azetidinyl)-1-piperazinyl]-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-73-1 CAPLUS

CN Piperidine, 4-[4-(1-benzoyl-3-azetidinyl)-1-piperazinyl]-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

RN

CN pyrazinyl-3-azetidinyl)-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-75-3 CAPLUS

Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-insert formula of the context formula oCN (3-thienylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-76-4 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-(2-thienylsulfonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-77-5 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-[(3R)-tetrahydro-3-furanyl]carbonyl]-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-78-6 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(2,2-dimethyl-1-oxopropyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-79-7 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(2-chlorobenzoyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-80-0 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(3-cyanobenzoyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-81-1 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(3,4-difluorobenzoyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-(9CI) (CA INDEX NAME)

RN

718637-82-2 CAPLUS Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-1])CN (3-pyridinylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

718637-83-3 CAPLUS RN

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-(pyrazinylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R, 4S)- (9CI) (CA INDEX NAME)

RN 718637-84-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[3-[4-[(2R,4S)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-piperidinyl]-1-piperazinyl]-1-azetidinyl]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-85-5 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[3-[4-[(2R,4S)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-piperidinyl]-1-piperazinyl]-1-azetidinyl]carbonyl]-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

RN 718637-86-6 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-[(1,3-dimethyl-1H-pyrazol-5-yl)carbonyl]-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-87-7 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-[(3S)-tetrahydro-3-furanyl]carbonyl]-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-88-8 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(3-furanylcarbonyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-89-9 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-[(4-methyl-1,2,3-thiadiazol-5-yl)carbonyl]-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

RN

718637-90-2 CAPLUS
Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-CN (cyclopropylcarbonyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R, 4S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-91-3 CAPLUS

Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(1-oxo-2-bis(trifluoromethyl)benzoyl]]CN phenylpropyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-(9CI) (CA INDEX NAME)

RN 718637-92-4 CAPLUS

CN Carbamic acid, [2-[3-[4-[(2R,4S)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-piperidinyl]-1-piperazinyl]-1-azetidinyl]-1,1-dimethyl-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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=> s 13 TG 0 L3

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